AMENDMENTS TO THE CLAIMS

None of the claims has been amended. The claims are reproduced here for the Examiner's convenience.

1. (Original) A face recognition system comprising:

a component learning/extraction module which receives image data of faces of individuals at various viewpoints and extracts component data at various viewpoints from the image data of faces of individuals at various viewpoints;

a component classifier training module which receives the component data at various viewpoints and produces results of classifier training of the component data at various viewpoints;

a knowledge base for component classification which stores the results of classifier training of the component data at various viewpoints;

a component extraction module which receives image data of faces of individuals at various viewpoints and extracts outputs of classification of the component data at various viewpoints, using the results of classifier training of the component data at various viewpoints, stored in the knowledge base for component classification;

an object identification training module which receives the outputs of classification of the component data at various viewpoints and determines an indicator component for each of the individuals that maximizes a posterior probability of a predetermined attention class under the outputs of classification of the component data at various viewpoints;

a knowledge base for face identification which stores indicator components for the individuals; and

an object identification module which receives the outputs of classification of the component data at various viewpoints and identifies faces of the individuals using the indicator components for the individuals stored in the knowledge base for face identification.

2. (Original) The face recognition system according to claim 1, wherein the component learning/extraction module receives data of viewpoints from a teacher.

3. (Original) The face recognition system according to claim 1, wherein the component classifier training module performs classification using a support vector machine.

4. (Original) The face recognition system according to claim 3, wherein the results of classifier training of the component data are represented by support vectors.

5. (Original) The face recognition system according to claim 3, wherein the outputs of classification of the component data are represented by support vectors.

6. (Original) The face recognition system according to claim 3, wherein the component classifier training module performs one-verses-all classification of the component data at various viewpoints, for each individual.

7. (Original) The face recognition system according to claim 6, wherein the knowledge base for component classification stores the results of one-verses-all classification of the component data at various viewpoints, for each individual.

8. (Original) The face recognition system according to claim 1, wherein said indicator component is determined by Bayesian estimation.

9. (Original) The face recognition system according to claim 1, wherein the object identification training module determines conditional probability of the outputs of classification of the component data at a first viewpoint, under a predetermined class, from the outputs of classification of the component data at the first viewpoint, determines posterior probability of the class by multiplying the conditional probability by a prior probability of the class, which is one Nth where N is the number of the individuals in case of the first viewpoint and the object identification training module determines conditional probability of the outputs of classification of the component data at a succeeding viewpoint, under the class, from the outputs of classification of the component data at the succeeding viewpoint, determines posterior probability of the class by multiplying the conditional probability by a prior probability of the class, which is the posterior probability of the class at the preceding viewpoint and thus determines posterior probability of the class, taking into account the outputs of classification of the component data at all the viewpoints.

10. (Original) A method for recognizing faces of individuals by a face recognition system comprising the steps of:

receiving image data of faces of individuals at various viewpoints;

extracting component data at various viewpoints from the image data of faces of individuals at various viewpoints;

receiving the component data at various viewpoints;

producing results of classifier training of the component data at various viewpoints;

storing the results of classifier training of the component data at various viewpoints, in a knowledge base for component classification;

receiving image data of faces of individuals at various viewpoints;

extracting outputs of classification of the component data at various viewpoints;

classifying components using the results of classifier training of the component data at various viewpoints;

determining an indicator component from said classified components for each of the individuals that maximizes a posterior probability of a predetermined attention class under the outputs of classification of the component data at various viewpoints;

storing indicator components for the individuals in the knowledge base for face identification; and

receiving the outputs of classification of the component data at various viewpoints and identifying faces of the individuals using the indicator components for the individuals stored in the knowledge base for face identification.

11. (Original) The method of claim 10, wherein said step of receiving image data of faces includes receiving data of said various viewpoints from a teacher.

12. (Original) The method of claim 10, wherein said step of classifying components performs classification using a support vector machine.

13. (Original) The method of claim 12, wherein the results of classifier training of the component data are represented by support vectors.

14. (Original) The method of claim 13, wherein the outputs of classification of the component data are represented by support vectors.

15. (Original) The method of claim 12, further comprising the step of performing a one-verses-all classification of the component data at various viewpoints, for each individual.

16. (Original) A method for recognizing faces of individuals according to claim 15, wherein the knowledge base for component classification stores the results of one-verses-all of the component data at various viewpoints, for each individual.

17. (Original) The method of claim 10, wherein said indicator component is determined by Bayesian estimation.

18. (Original) The method of claim 10, further comprising the steps of:

determining conditional probability of the outputs of classification of the component data at a first viewpoint, under a predetermined class, from the outputs of classification of the component data at the first viewpoint;

determining posterior probability of the class by multiplying the conditional probability by a prior probability of the class, which is one Nth where N is the number of the individuals in case of the first viewpoint;

determining conditional probability of the outputs of classification of the component data at a succeeding viewpoint, under the class, from the outputs of classification of the component data at the succeeding viewpoint;

determining posterior probability of the class by multiplying the conditional probability by a prior probability of the class, which is the posterior probability of the class at the preceding viewpoint and thus determines posterior probability of the class, taking into account the outputs of classification of the component data at all the viewpoints.